Uncompromising ultra-portable design

POWERFUL MOBILE PERFORMANCE

Intel® Core™ 2 Duo P9500 processor (2.53GHz[1]) with Intel® Centrino® 2 processor technology – the latest chipset from Intel®.

The VAIO® Z notebook comes pre-installed with Genuine Microsoft® Windows Vista® Business with Service Pack 1.

Uncompromising elegance weaved into a 3.4 lb[7] go-anywhere package.

XBRITE-DuraView™ LCD technology with LED backlight for a brighter, crisper, tougher display.

WIRELESS FREEDOM

Built-in Wireless-N technology offers a boost in wireless connection speed and range[3].

Optional Integrated Sprint® Mobile Broadband technology for blazing-fast wireless access beyond LAN networks and hotspots.

Extend the reach of your Z notebook with Stereo A2DP Bluetooth® technology[16] that is ideal for advanced wireless communication and streaming uncompromised CD-quality stereo music to Bluetooth® technology enabled speakers or headphones.

ENDLESS FEATURES

Hybrid graphics system lets you set graphics performance on the fly – no reboot necessary.

An HDMI™ output[17] delivers video and audio to external sources via a single cable so you can enjoy HD entertainment on your compatible big screen TV without a myriad of extra cables (HDMI™ cable sold separately).

A built-in biometric fingerprint scanner makes authentication and secure access quick and easy – you only need your fingerprint.

An integrated Trusted Platform Module (TPM) TCG Ver.1.2 compliant chip enhances security by allowing you to control access on a specific client/user basis.

ENVIRONMENTALLY ENGINEERED FEATURES

Energy-efficient 25 watt Intel® Centrino® 2 processor offers all the performance at lower power consumption.

By using a mercury-free backlit LCD display, the VAIO® Z keeps one less chemical out of both your home and the landfills.

The Z notebook is ENERGY STAR® qualified, which means that it uses less power and reduces greenhouse gas emissions by meeting strict efficiency guidelines set by the Environmental Protection Agency and the Department of Energy.

The VAIO® Z notebook holds an environmental rating of Silver from EPEAT™ .

Built tough for business, the VAIO® Z notebook offers the portability of a 3.4 lbs[7] (with standard battery) form factor with the performance of a larger computer. Encased in durable carbon fiber and featuring scratch-resistant XBRITE-DuraView™ LCD technology, the Z notebook is designed to withstand the rigors of the road.

VGN-Z590NGB

VAIO® Z Series Notebook PC

Specifications

General

Computer Type: Notebook
Type of Use: Ultra-portable
Action Buttons: S1, S2, WLAN/Bluetooth® on/off, Performace Select
Pointing Device: Electro-Static touch pad
Security: Biometric Fingerprint Sensor
Trusted Platform Module (TPM) TCG Ver.1.2 compliant

Hardware

Keyboard: QWERTY, 82 keys with 2.5mm stroke and 19.05mm pitch
Camera: Built-in MOTION EYE® camera and microphone

Processor

Type: Intel® Core™ 2 Duo Processor P9500
Speed: 2.53GHz[1]
Front Side Bus Speed: 1066MHz
L2 Cache: 6MB
Technology: Intel® Centrino® 2 processor technology

Memory

Type: DDR3 SDRAM
Installed: 3GB[15] PC3-8500 (2GBx1 + 1GBx1)
Maximum: 4GB[15]
Speed: 1066MHz

Hard Drive

Capacity: 250GB[2]
Speed: 5400rpm
Interface: Serial ATA
Impact Protection: G-Sensor™ Shock Protection - Hard Disk Drive Protection

Optical Drive #1

DVD+R DL Write: 4x max
DVD+R Write: 8x max
DVD+RW Write: 4x max
DVD-R Write: 8x max
DVD-RW Write: 4x max
CD-R Write: 16x max
CD-RW Write: 10x max
DVD±RW: Yes[5] (DVD±R DL/DVD±RW/RAM)
CD Read: 24x max
DVD Read: 8x max
DVD-RAM Write: 5x max
DVD-R DL Write: 4x max
DVD-RAM Read: 5x max

Expansion Slots

Multimedia Card Reader: One Memory Stick Duo™ media slot with MagicGate® functionality
One ExpressCard® /34 slot
One Secure Digital (SD™ memory card) media slot

Audio

Sound System: Intel® High Definition Audio

Display

Screen Size: 13.1"[6]
Resolution: 1600 x 900
XBRITE-ECO™ Technology: Yes
Back Light Technology: LED

Graphics

Processor: NVIDIA® GeForce® 9300M GS GPU with Total Available Graphics Memory of 1500MB (max.) and Mobile Intel® Graphics Media Accelerator 4500MHD with Intel® Clear Video Technology with Total Available Graphics Memory: 1300MB (max.)[10]
Video RAM: 256MB of dedicated video RAM
Technology: Hybrid Graphics System
Chipset: Mobile Intel® GM45 Express Chipset
Interface: HDMI™ [17] and VGA out w/ Smart Display Sensor

Inputs and Outputs

HDMI™ Connection Output(s): 1[17]
Headphone Jack: 1
Modem Jack: 1
Microphone Input: 1
Port Replicator Connector(s): 1 (Bottom)
USB Port(s): 2 (2.0 compliant)
VGA Output(s): 1
DC-In: 1
i.LINK® Connection: 1 (4pin) i.LINK® connector (IEEE 1394)[9]
Ethernet Connection (s): 1

Networking/Modem

Ethernet Protocol: 10Base-T/100Base-TX/1000Base-T
Ethernet Speed: Fast Ethernet (RJ-45)
Modem Type: Integrated V.92/V.90 Modem (RJ-11)
Wireless LAN: Intel® WiFi Link 5100AGN(802.11a/b/g/n)[3]
Wireless WAN: Optional Sprint® Mobile Broadband Service[18]
Bluetooth® Technology: Integrated Stereo A2DP Bluetooth® Technology[16]

Power

Battery Type: Standard Capacity Lithium-ion Battery (VGP-BPS12)
Estimated Battery Life: 2.0 to 6.0 hours[11] Standard Capacity Battery
3.0 to 9.0 hours[11] Large Capacity Battery
Power Requirements: 100W + 10%

Software

Operating System: Genuine Microsoft® Windows Vista® Business with SP1/XP downgrade
Internet Services: AOL® 90-Day Risk Free Trial - New Users Only
Anti-Virus and Recovery Software: Microsoft® Windows Live™ OneCare™ Trial Version
Supplied Software: Microsoft® Works SE 9.0 w/ 60-Day Trial Version of Microsoft® OfficeSmall Business 2007[14]
Sony® Original Software: VAIO® Startup Assistant
Click to Disc Editor - Import, Edit, Burn
VAIO® Movie Story - Simple Movie Creation
VAIO® MusicBox - Music by Mood
VAIO® Media plus - Multimedia Streaming Software
*Please access VAIO® Help and Support from your PC for a complete list of software applications and trials.

Service and Warranty Information

Telephone Support: 1 year toll-free technical telephone assistance, available 24/7[13]
Online and Email Support: Support available from http://www.esupport.sony.com/EN/VAIO
Limited Warranty Term: 1 year limited warranty[12]. See actual warranty for details.

Environmental Information

EPEAT™ : Meets Silver EPEAT™ Rating
RoHS®: Compliant
For more information: www.sony.com/vaioeco

Regulation and Standard Compliance

Energy Star® Compliant: 4.0

Dimensions

Weight: 3.42 lbs[7] (with standard battery)
Measurements: 12.4"(W) x 1.0-1.3"(H) x 8.3"(D)[7,8]

Supplied Accessories

Standard Lithium-ion battery (VGP-BPS12)
AC Adapter (VGP-AC19V25)
Power Cable

Optional Accessories

Stick AC Adapter (VGP-AC19V21)
Port Replicator (VGP-PRZ1)
Additional Standard Capacity Battery (VGP-BPS12)
Large Capacity Battery (VGP-BPL12)
VAIO® Protection Case (VGP-CKZ1)
USB Optical Mouse (VGP-UMS20/B)
Bluetooth Laser Mouse[16] (VGP-BMS33/B)
Neoprene Case (VGP-AMC1)

Color: Black
UPC Code: 27242745407

1. GHz denotes microprocessor internal clock speed; other factors may affect application performance. CPU speed will be reduced under certain operating conditions.
2. GB means one billion bytes when referring to hard drive capacity. Accessible capacity may vary. A portion of hard disk space is reserved as a recovery partition.
3. Requires 802.11n compatible access point. Some functionality may require Internet services, which may require a fee.
4. Broadband Internet service required along with third party services which may require a subscription or other service fee.
5. DVD Media/Formats are not universally compatible.
6. Viewable area measured diagonally.
7. Non-metric weights and measures are approximate and may vary.
8. Measured at the narrowest point
9. i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connector. All products with an i.LINK connector may not communicate with each other.
10. Total Available Graphics Memory refers to the new Windows Vista® classification of graphics memory, which varies depending on the operating condition, version of device driver and system memory size.
11. Actual battery life may vary based on product settings, usage patterns and environmental conditions. Battery life will be shorter with models equipped with Instant Mode features.
12. See actual limited warranty for details. For a copy of Sony's warranty, please visit www.sony.com/pcsupport, call toll-free 888-476-6972 (888-4SONYPC) or write to Sony Electronics, 12451 Gateway Boulevard, Fort Myers, FL 33913.
13. For certain third party software applications, Sony provides first level phone support. Additional telephone support may be available from the applicable 3rd party vendor. Availability and schedule for any such support is determined by the aplicable software vendor.
14. 60-Day Trial Version of Microsoft® Office 2007 - This trial software will work only for 60 days after you first use it. You will not be able to use the software if you dont activate it as described the first time you use the software. You can activate the software by Internet: Internet service charges may apply. If you want to keep using the software after the 60-day trial period, you must convert to the perpetual version. You can convert online by following the conversion instgructions presented during setup and paying the required fees.
15. A portion of the system memory over 3GB may not be available to the operating system.
16. Interoperability and compatibility among Bluetooth® devices varies.
17. Requires high definition-capable display with HDMI™ connector. Image quality will vary.
18. Free Month Offer: Limited time offer. Subject to change. You will be charged a regular monthly fee for your selected connection card plan. A one month service credit will be applied to your account within 1-3 bill cycles. Service credit will be for the amount of the monthly rate charge only. See www.sony.com/sprint for complete offer details, price plans, service terms and conditions, and coverage map. Click the Sprint icon on your VAIO notebook's desktop for service activation. Coverage not available everywhere – see coverage map for details. Credit approval and $200 early termination fee applies if not cancelled within the first 30 days. Service defaults to Nationwide Sprint PCS Network, where available, if Sprint Mobile Broadband Network is unavailable. Not available while roaming. Terms & Conditions and additional restrictions apply. May not be combined with other offers.

Computer Interface: For this product,there are a multitude of varying software packages and add-on hardware options. This product is not manufactured to work with any specific software, and Sony does not and cannot make any warranty or representation with respect to the performance of this product with any particular software packages and/or non-Sony add-on hardware options except those mentioned here. Sony hereby disclaims any representations or warranties that this product is compatible with any combination of non-Sony products you may choose to connect to it. While Sony representatives or Sony authorized dealers may be able to assist you and may make recommendations, they are NOT authorized to vary or waive this disclaimer. Purchasers must determine for themselves the suitability and compatibility of the hardware and software in each and every particular instance. Software titles pre-installed on the Sony computer are subject to change without notice. Preinstalled software may not be identical to retail versions or have all documentation. Features and specifications are subject to change without notice. This product meets the standards of the International Energy Star Program for energy efficiency.

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